SYNOPSIS
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FINANCIAL ANALYSIS OF CEMENT INDUSTRY OF INDIA : A STATISTICAL APPROACH

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1. INTRODUCTION

Financial appraisal is a scientific evaluation of profitability and financial strength of any business enterprise. It is a process of scientific study, by making a proper, critical and comparative evaluation of the financial statement of a business concern. The term financial appraisal and financial analysis are generally used as more or less synonymous terms. But financial analysis is the preliminary step towards a final examination of the result drawn by an analyst; while financial appraisal is the end of a continuous accounting cycle which starts with recording, classification, summarizing, presentation and analysis of data and finally the interpretation of the result obtained from a critical analysis thereof. Through the appraisal of financial statement much more can be learnt about the operating efficiency and financial position of a business enterprise. It highlights the significant facts and relationship regarding the managerial performance, corporate efficiency, financial strength and weakness and credit worthiness of a business enterprise.

Financial appraisal is an evaluation of the financial performance as also of the financial position of a business enterprise. Financial performance is judged on the basis of financial data as contained in the profit and loss account whereas financial position is evaluated on the basis of figures shown in the balance sheet of a business concern. There are many objectives of a business enterprise but the primary objectives of any business firm are profitability and solvency. Unless the firm generate satisfactory return and pay its debts as and when they become due, any other objectives of a business firm may never be realized. In order to evaluate the profitability and financial strength, the mechanics of financial appraisal can be evolved.

It is the means of making an appraisal of the various projects and making a choice amongst them of the most feasible one in view of the possible investment that can be made and expected return that may be generated thereon. However the scope of financial appraisal can not be normally restricted only to project evolution. Its scope is now far expansive, because the techniques of financial analysis that are employed today for diagnosing the financial health of an enterprise, eventually help both the

external and inter parties interested in the profitability and financial strength of a business enterprise.

The technique of appraisal is frequently applied to the study of accounting data with a view to determining the continuity or discontinuity of the operating policies, investment value of a business, credit rating and testing the efficiency of operations. Everybody interested in the affairs of a company is interested in finding answers to the following question:

1. Dose the company earns adequate profit?
2. Dose the company possess enough funds to meet its obligations as and when they due?
3. Is investment in the company safe?

The main purpose of financial analysis is to make available to creditor, stock holders and the general public adequate information about and evaluation of a corporation's financial positions. Of special interest to banks and other providers of funds to corporations are the various ratios that enable creditors and investors to evaluate the progress of a company and help in comparing its current accomplishments and financial prospects with those of its past and with those of similar corporation.

Various groups are interested in the evaluation of financial performance of a business enterprise. They can satisfy their need of information by applying the techniques of financial analysis. The need for financial analysis varies according to the requirement of the information need of the users. For the manager, financial analysis is a tool of evaluating the overall effectiveness of their policies. The management can make self evaluate of its performance. Investors can evaluate the earning capacity and financial strength of a company through financial analysis. Borrowers can evaluate the credit worthiness and financial strength of a business enterprise through the analysis of financial statements. The financial analysis is equally useful to the government in performing its tasks to regularize the economic activities by providing useful information. To employ of a business concern, it provides valuable information like operating performance and profitability. For the public, financial analysis is an important tool to judge weather the business enterprise is performing its social responsibility well.

There are various techniques for the analysis of financial statement. Comparative statement analysis, common size statement analysis, trend analysis, ratio analysis, fund flow analysis and cash flow analysis are the various accounting techniques used for financial analysis. ANOVA, Trend Analysis, Central tendency, standard deviation, coefficient of variation, coefficient of correlation, coefficient of determination are the statistical techniques most commonly used for the analysis of financial statements. The graphs and charts are also important tools of financial analysis.

2. REVIEW OF LITERATURE

Kaura, M.N and Bala Subramanian (1979) analyzed ten cement units during the period of study 1972 to 1977 shows that the financial performance of the selected cement companies evidenced by Profitability, Liquidity and capital structure ratios has declined. The non availability of funds has affected the modernization of plants and periodic rehabilitation of the kilns. Besides, the bottlenecks in supply of raw materials and power and non remunerative prices have reduced the capacity utilization, profits and cash flows. The profitability and liquidity position in many cement companies have been affected adversely because of the problems in supply of raw materials , transport and power.

Nagarajrao B.S and Chandar K (1980) analyzed the financial efficiency of cement companies for the selected period of the study 1970 -71 to 1977-78. It can be analyzed profitability of selected cement companies has been found downward trend from 1970-71 to 1974-75 because the reason of inflation, rising of manufacturing cost, continuous fall in capacity utilization due to many reasons.

3. METHODOLOGY OF THE STUDY

[3.1] METHODOLOGY

For the purpose of present study a representative stratified sample of cement companies of appropriate size have been selected from the population i.e. the cement producing companies listed on NSE/BSE, taking into account the paid up capital of a company as its size. Representative ratios for the industry were found by appropriately combining such ratios of the companies selected in the sample for all

years. Then on the basis of such representative ratios of the industry, trend analysis and ANOVA were carried out.

[3.2] RESEARCH STATEMENT

"Financial analysis of the cement industry of India : A statistical approach"

[3.3] OBJECTIVES OF THE PRESENT STUDY

The present study "Financial analysis of cement industry of India : A statistical approach" has been conducted to fulfill the various objectives as shown below. The purpose of the current study is to analyze the financial viability of the cement industry as well as of the selected cement companies. The basic objectives of the study is to examined financial strength, weakness in the financial performance of the cement industry as well as selected cement companies. The main objective of the present study is to have an insight into the financial performance of the cement industry as well as selected cement companies. The main objectives of the present study are enumerated below.

1. To identify the strengths and weaknesses in the financial performance of the cement industry and of the selected cement companies for making appropriate suggestion on the basis of trend analysis and ANOVA of various ratios of the companies selected and the representative ratios computed using statistical technique for the industry.
2. To analyze the profitability and operating efficiency of the cement industry and the cement companies under study.
3. To find out the liquidity and short term financial strength during the period of study of the cement industry and selected cement companies.
4. To analyze the solvency ratios are to examine the long term financial strength of the cement industry and selected cement companies under study.
5. To analyze activity ratios and some other aspects of financial performance of the companies selected in the study as well as the industry as a whole.

[3.4] HYPOTHESIS

There are two type of Hypothesis for the possible answer to the research question .

- Null Hypothesis

  H_o = There is no significient difference in financial performance of selected cement companies.

- Alternative Hypothesis

  H_1 = There is significant difference in financial performance of selected cement companies.

[3.5]SCOPE OF THE PRESENT STUDY

The scope of the present study is very wide and broad. The present study is limited to the analysis of profitability, analysis of liquidity, analysis of short term financial strength through the analysis of the management of working capital and analysis of long term financial strength through the analysis of solvency ratios, The present study covers only monetary aspects. Non monetary aspects which may have significant impact on the financial performance of the cement industry and selected cement companies have not been covered under the present study. The present study excludes probing into other financial problems like capital budgeting, impact of social, economical and political environments on the cement industry, impact of government policies regarding trade and industry, etc. It is also important to mention here that it is not the intention of the present study to ascertain the acceptance or rejection of the various theory of financial management. The present study covers only those cement companies which are listed on Bombay Stock Exchange and National Stock Exchange. It does not cover those cement companies which are not listed on Bombay Stock Exchange and National Stock Exchange. The present study is restricted to the analysis of the financial statement of the selected cement companies from the point of view of the appraisal of profitability, liquidity, short term and long term financial strength and overall financial performance of the cement industry as well as of the selected cement companies. The study only disclose the reasonableness and adequacy of working capital, reasonableness and adequacy of long term capital and reasonableness of the profitability in cement industry and the selected cement companies under study.

[3.6] SELECTION OF SAMPLE

The present study is restricted to only those cement companies which are listed on the Bombay Stock Exchange and National Stock Exchange. Following 18 cement companies have been selected out of 33 cement companies which are listed on Bombay Stock Exchange and National Stock Exchange.

Table No :- 3.6.1

Paid up share Capital of the Selected cement Companies

(Rs. In crore)

SR. NO.	COMPANY NAME	PAID UP CAPITAL
1	PRISM CEMENT LTD	503.36
2	THE INDIA CEMENT LTD	307.18
3	SANGHI INDUSTRY LTD	298.98
4	ULTRATECH CEMENT LTD	274.07
5	BINANAI CEMENT LTD	188.60
6	GRASIM INDUSTRY LTD	91.71
7	BIRLA CORPORATION LTD	77.01
8	J K CEMENT LTD	69.93
9	JK LAKSHMI CEMENT LTD	61.19
10	CHETTINAD CEMENT LTD	38.20
11	NCL INDUSTRIES LTD	34.94
12	SHREE CEMENT LTD	34.84
13	MANGALAM CEMENT LTD	26.69
14	MADRAS CEMENT LTD	23.80
15	BARAK VALLEY CEMENT LTD	22.16
16	SAGAR CEMENT LTD	17.39
17	EVEREST INDUSTRIES LTD	15.11
18	DECCAN CEMENT LTD	7.00

Table No :- 3.6.2

CLASSIFICATION OF COMPANY BASED ON DIFFERENT SIZE

COMPANY SIZE	TOTAL COMPANY	SELECTED COMPANY
Large (Paid up capital more than Rs. 200cr)	7	4
Medium(Paid up capital between Rs. 75 cr to 200 cr)	5	3
Small (Paid up capital less than Rs. 75 cr)	21	11
Total	33	18

The above cement companies have been selected considering the following criteria.

1. Whether the sample selected for the present study represents the cement companies of different age group.
2. Whether the sample selected for the present study represents the cement companies of different size considering the installed capacity and paid up capital.

[3.7] PERIOD OF STUDY

The present study covers the period of ten years spanning from 2002-03 to 2011-12. The period of ten years can be considered sufficiently enough to derive the trends and fruitful results. Many important studies in the field of financial management in recent past have also been made using the time span ranging from five years to ten years. Moreover the complete data for the present study was available, is also one of the reasons behind selecting this period.

[3.8] NATURE OF DATA REQUIRED

For the purpose of current study the financial and other data requires are of the following nature.

1. Brief history of the selected cement companies under study.
2. For the analytical purpose, the information regarding the financial position of the selected cement companies have been required. The base for financial analysis and appraisal is the financial information of the selected companies under study, hence the annual financial statements for the period from 2002-03 to 2011-12 are required for the present study.

3. Secondary data published by the concerned companies.

[3.9] SOURCES OF DATA

The required data for the present study have been collected from the secondary sources basically through the review of the followings.

1. The audited annual financial reports of the selected cement companies from the year 2002-03 to 2011-12 have been obtained from the web site of the particular selected cement companies. The data regarding the financial position of the cement companies under study have also been collected through the web site of www.moneycontrol.com
2. Other important financial information have been collected from the various industrial magazines and journals of trade and commerce. The financial information of the cement industries has also been collected from the web site of ministry of commerce

For the purpose of the analysis and appraisal the profit and loss account and the balance sheet of the selected cement companies have been presented in a condensed form. The data collected have also been recast and various components have been classified into various groups in such a manner that the analysis is facilitated. The statements showing the total cost under various heads have also been prepared. The figures taken from the annual reports have been rounded off up to two decimal points in lakes rupees.

[3.10] TOOLS AND TECHINIQUES OF ANALYSIS

There are various tools and techniques for the analysis and appraisal of the financial position of the units under study. The various accounting tools, statistical tools and techniques of diagrammatic and graphic presentation have been adopted for the analysis of the financial performance of the cement industry and of the individual selected cement companies. The various tools and techniques used for the present study are as follows.

1. Accounting Tools :

The following accounting techniques have been applied for the financial analysis of the cement industry and of the cement companies under study.

- Ratio Analysis

2. Statistical tools :

The application of the statistical tools has become the normal phenomenon in any analytical research and study. The following statistical techniques have been applied for the study.

- Average
- Coefficient of correlation (r)
- Coefficient of determination (R^2)
- Analysis of Variance (ANOVA)
- Trend Analysis

3. Graphic Presentation :

The technique of graphic presentation of data facilitates the reader to understand the existing trend of the data. The diagram and graph represents the data in simple and in tangible form. According to Mills, 'When the results of the observations or statistical investigations have been secured in quantitative form, one of the first steps towards analysis and interpretation of the data is that of presenting these results graphically.' For clear understanding of the data various types of charts like line chart, bar chart and pie chart have been utilized in the present study.

[3.11] LIMITATIONS OF THE STUDY :

The likely limitations of the present study are as follows.

1. The present study is entirely depend on the secondary data. Therefore the detail information regarding the company's financial management and working would be missing.
2. The study is totally depend on the financial data collected from the published annual reports of the selected Cement companies. Certain financial data are also be collected through the internet websites source. The data collected from the above sources may not have all the details. Thus the present study will incorporate all the limitations that are inherent in the secondary data of period from the financial reports.
3. The size of the sample selected of the current study is small. The sample is restricted to only eighteen cement companies. Therefore the limitation of the small sample is also applicable to the present study. Moreover the sample includes only those companies which are listed on the Bombay Stock Exchange

and National Stock Exchange hence the result obtained from the analysis of the present study cannot be applied to all the cement companies of the cement industry.

4. The study contains all the inherent limitations of the tools and techniques applied for the study. For example ratio is used as a tools of financial analysis but it has its own limitations. In the same way various statistical techniques used for the analytical purpose also having their own limitations. In this way the limitations of tools and techniques applied for the financial analysis, cannot be over emphasized.
5. Different companies use the different method of production. The process of manufacturing may also be different. For the purpose of this study it is assumed that all the companies engaged in cement production use the same method of production. But in actual practice different companies adopt different method of production therefore the conclusion derived from the present study cannot be applied to all the cement companies.
6. The sample represents the company of different age group. Some of the companies selected for the study are very old, while some of them are new. The old companies and new companies may have their different problems. But for the analytical purpose all the selected companies are considered equal.

[3.12] CHAPTAR PLANNING

The present study has been divided in to nine chapters as follows.

Chapter - 1 : Introduction

The first chapter deals with the theoretical background of the cement industry. In this chapter the meaning of cement, types of cement and the data of cement industry are described.

Chapter - 2 :Literature Review

The chapter second deals with the literature review regarding the present study. The review regarding this study is categorized national and international.

Chapter - 3 :Research Methodology

This chapter deals with the methodology of the present study. In this part the research statement, objectives of the study, scope of the study, selection of sample, period of study, nature of data required, sources of data, tools and techniques of analysis, limitation of the study etc have been discussed.

Chapter - 4 : Profile of the selected cement companies

The chapter four has been devoted to the profiles of the selected companies and brief description of the selected company.

Chapter - 5 : Theoretical background

The chapter five deals with the theoretical background of the various types of ratios like, profitability ratio, activity ratio, liquidity ratio, solvency ratio and theoretical background of ANOVA Trend and etc.

Chapter - 6 :Trend Analysis

The chapter six deals with the trend analysis of the cement industry as well as that of the selected cement companies. An effort has been made to find out the trend of cement industry as well as selected cement company.

Chapter - 7 :Analysis of Variance (ANOVA) Company wise

The chapter seven has been meant for the Analysis of Variance (ANOVA) Company wise.

Chapter - 8 : Analysis of Variance (ANOVA) year wise

The chapter eight has been allocated for the Analysis of Variance (ANOVA) year wise.

Chapter - 9 : Conclusions And Suggestions

The last chapter, i. e. chapter nine contains the conclusions regarding the financial performance of the cement industry and selected cement companies. Various suggestions have also been made for removing the shortcomings and for the betterment of the financial position of the cement companies.

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